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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,073	08/22/2003	Yuji Ishii	FUJZ 20.589 (100794-00475)	9701
26304 7590 01/25/2008 KATTEN MUCHIN ROSENMAN LLP 575 MADISON AVENUE NEW YORK, NY 10022-2585			EXAMINER DO, CHAT C	
			ART UNIT 2193	PAPER NUMBER
			MAIL DATE 01/25/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/647,073

Applicant(s)

ISHII ET AL.

Examiner

Chat C. Do

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is responsive to Amendment filed 11/02/2007.
2. Claims 1-5 are pending in this application. Claim 1 is an independent claim. In Amendment, claims 6-7 are previously cancelled and claim 1 is amended. This Office Action is made non-final after a RCE filed 11/02/2007.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.
4. Claims 1-5 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-5 cite a device for filtering an input string in accordance with a predetermined mathematical algorithm. However, claims 1-5 merely disclose series components of the filter without disclosing a practical application or a tangible result because the claims appear to preempt every substantial practical application of the idea embodied by the claims. Further in claims 1-2 and 4-5, no specific limitation/feature in the claim breathes sufficient life and meaning into the preamble so as to limit it to a particular practical application rather than being so broad and sweeping as to cover every substantial practical application of the idea embodied therein. Therefore, claims 1-5 are directed to non-statutory subject matter.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by David (U.S. 4,805,129).

Re claim 1, David discloses in Figures 6-7, 16, and 22-23 a digital filter device (e.g. abstract, Figure 7 as FIR filter) comprising:

one or more computing processors for generating input data strings (e.g. as it needs at least one processor to generate input image signal to any of the Figures above and col. 1 lines 12-29);

an input data memory for storing the input data strings (e.g. as the prestore 24, array store 26, and partial products store 28 for pushing data into the filter processes); and

a digital filter for reading the input data strings out of the input data memory in a predetermined order (e.g. specific predetermined method of reading input data from memory is seen in col. 8 lines 29-59), said order having a separate timing than a data string generating timing (e.g. Figures 4-5 as an illustration of timing differences with corresponding text description in col. 2 line 60 to col. 3 line 9 and col. 7 lines 20-54 and further the control means 60 in any of Figures above is configured to fetch data in predetermined order according to number of modes in cols. 13-26 independent from the

input data 20 into the memory), to be filtered and for generating output data strings (e.g. the actual FIR filter is in Figure 7 and the output data string is the result of the last adder 48 in any Figures).

Re claim 2, David further discloses in Figures 6-7, 16, and 22-23 an output data memory for storing the output data strings generated by the digital filter (e.g. the partial products store memory 28), and a data processor for reading the output data strings stored in the output data memory in a predetermined order to be processed (e.g. control by the control means 60 along with 88 in Figure 23).

Re claim 3, David further discloses in Figures 6-7, 16, and 22-23 a switch table for associating an address of the input data memory in which the input data strings are stored with an address of the output data memory in which the output data strings are stored (e.g. as parameters to feed to the control means 60 in any above Figure to control the input string into the calculation means and Figure 21), and a switching controller for providing timings of reading the input data strings out of the input data memory based on the switch table and of writing the input data strings a the output data strings into the output data memory through the digital filter (e.g. control by the control means 60 along with 88 in Figures 22-23).

Re claim 4, David further discloses in Figures 6-7, 16, and 22-23 a filter memory for storing data-under-calculation upon filtering for a first input data string before filtering for a second input data string from filtering for the first input data string, in a delay circuit included in the digital filter (e.g. Figure 23 with feedback to store the partial product), and for restoring the data-under-calculation to the delay circuit when filtering

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the input data string subsequent to the first input data string is started (e.g. as tap storage as the array store).

Re claim 5, David further discloses in Figures 6-7, 16, and 22-23 one or more coefficient memories for storing a filter coefficient corresponding to each input data string of the digital filter (e.g. weighting coefficient calculator 32), a filter coefficient corresponding to an input data string to be filtered being set in the digital filter (e.g. col. 11 lines 11-21).

Response to Arguments

7. Applicant's arguments filed 11/02/2007 have been fully considered but they are not persuasive.

a. The applicant argues in pages 5-9 for claims 1-5 rejected under 35 U.S.C. 101 that the examiner fails to explain how the claims are properly rejected under 35 U.S.C. 101 and further the step of "reading in a predetermined order" would provide a concrete, useful, and tangible result as required under Interim Guidelines.

The examiner respectfully submits that the examiner has made the rejection clearly in the above and further firmly disagreed with the applicant that the step of "reading in a predetermined order" is not a mathematical algorithm and it should be considered as concrete, useful, and tangible result. Reading a data output of memory in a predetermined order for performing a mathematical function is considered as an abstract idea/mathematical algorithm. The mathematical

algorithm won't properly perform if it reads the data randomly without predetermined or pre-assigned.

b. The applicant argues in page 10 for claim 1 rejected under 35 U.S.C. 102(b) that the cited reference by David fails to disclose the limitation of "said order having a separate timing than a data string generating timing" since "the separation the timings at the input data memory, namely by separating the timings before the memory, at the digital filter, and after the filter, each channel data outputted from the filter at the same interval is not effected by variation of the filtering time. Thus the filtering order can be changed at will, the filtering can be uninterruptedly done to sequential data such as voice data, and individual filtering of all of the channels are made possible by changing the filtering coefficients".

The examiner respectfully submits that the claims, particularly current language of claim 1, do not disclose the above limitation "the separation the timings...changing the filtering coefficients" as explained by the applicant. All the claim 1 discloses beside other general limitation is the reading the data out of memory in a predetermined wherein the reading order having a separate timing than a data string generating timing. This limitation is clearly seen in the cited reference by David as addressed in the above rejection as seen in Figures 4-5 wherein the reading data for filtering is depending on the compression level such that the filter only reads out the necessary data within specific timing to filter for processing corresponding to the amount of compression level. Figure 5 is an

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illustration of 2:1 compression level wherein only one of two adjacent data is selected or read out for filtering.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (571) 272-3721. The examiner can normally be reached on M => F from 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do
Examiner
Art Unit 2193

January 20, 2008

